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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,302	11/14/2001	Ching-Shan Lu	LUCH3004/EM/7372	6904
23364	7590	11/29/2004	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			RAO, SHEELA S	
			ART UNIT	PAPER NUMBER
			2125	

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/987,302	Applicant(s) LU ET AL.	
	Examiner Sheela Rao	Art Unit 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendment and response filed on September 8, 2004 has been received and entered.
2. Claims 1-4 and 7 have been amended. Claims 5 and 6 have been cancelled. Claims 1-4 and 7 are pending and presented for examination.

Response to Amendment

3. The objection made to the disclosure is withdrawn in light of the changes made.
4. The objection made to figures 1-4 is withdrawn in light of the changes made.
5. The objections made to claims 1-7 regarding idiomatic inconsistencies and to claims 1-6 as being of improper dependent form are withdrawn in light of the changes made.
6. The rejection of claims 1-7 under 35 USC§112, first paragraph, as failing to comply with the enablement requirement is withdrawn in light of the amendments made.
7. The rejection of claims 1-7 under 35 USC §112, second paragraph, as being indefinite (claims 1-6) and lacking proper antecedence (claims 1-7) is withdrawn in light of the amendments made.
8. the rejection of claims 1-7 under 35 USC §102(b) as being clearly anticipated by Johanson et al. (USPN 4,365,300) is withdrawn in light of the amendments made to the claim language.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada et al. (US Patent No. 5,589,086) in view of Shimomura (US Patent No. 6,643,560 B2).

Shimomura teaches of a data generating device, method, and program for generating numerical data for controlling the operation of a cutting tool in the machining process. In doing so, the disclosed system generates NC data by automatic calculations with the use of computers and conducts the cutting of the workpiece based on the generated NC data. The data generating device generates the NC data separately for each part of the article to be machined; thereby allowing for a database of data for different parts under different conditions to be constructed. A NC data checking unit is present to simulate an operation of the cutting tool using the stored NC data. With the simulation results, the data generated can be verified for correctness. The NC data generating unit is adapted to output the generated or initial set of NC data in response to an instruction upon accepting the simulation result, or automatically if the result of the simulation satisfies the predetermined conditions. See column 2:ll. 5 et seq.; column 4:ll. 58 et seq.

Although, the reference of prior art to Shimomura teaches the use of a numerical control device, the operation of a NC controller within an electric discharge machine is not suggested. For this reason, Examiner relies on the teachings of the invention by Sawada et al. The Sawada reference teaches of an electric discharge machining apparatus and method. The EDM apparatus comprises a numerical control unit for controlling the EDM machine which reads a machining program and writes commands for movement of the machining process. The system calculates and stores position and condition data in its memory. A detecting device is present for monitoring the electric discharge condition in the gap between an electrode and a workpiece during the machining operation along with a position detector for detecting the rotational position and speed of the servomotor. See column 5: ll. 3-56. As per Figure 3 of the Sawada patent, a numerical control unit for controlling the electric discharge machine and a shared memory are included.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the NC data generating unit as detailed by Shimomura with the EDM machining apparatus of Sawada et al to be able to generate numerically controlled data to operate the electrical discharge machining apparatus at a more efficient and higher speed without comprising time.

For the reasons stated above, the limitations of the claimed invention are taught by the prior arts of record; thereby, rendering the instant claims unpatentable.

Response to Arguments

11. Applicant's arguments with respect to claims 1-4 and 7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela Rao whose telephone number is (571) 272-3751. The examiner can normally be reached Tuesday - Thursday from 9:00 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on (571) 272-3749.

Any response to this action should be mailed to:

**Commissioner of Patents and Trademarks
Washington, D.C. 20231**

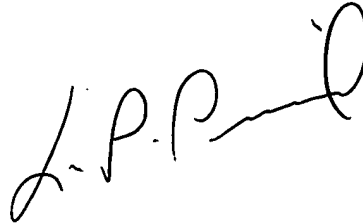
or faxed to:

(703) 305-3718 for Official Communications

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.



Sheela S. Rao
November 23, 2004



LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100